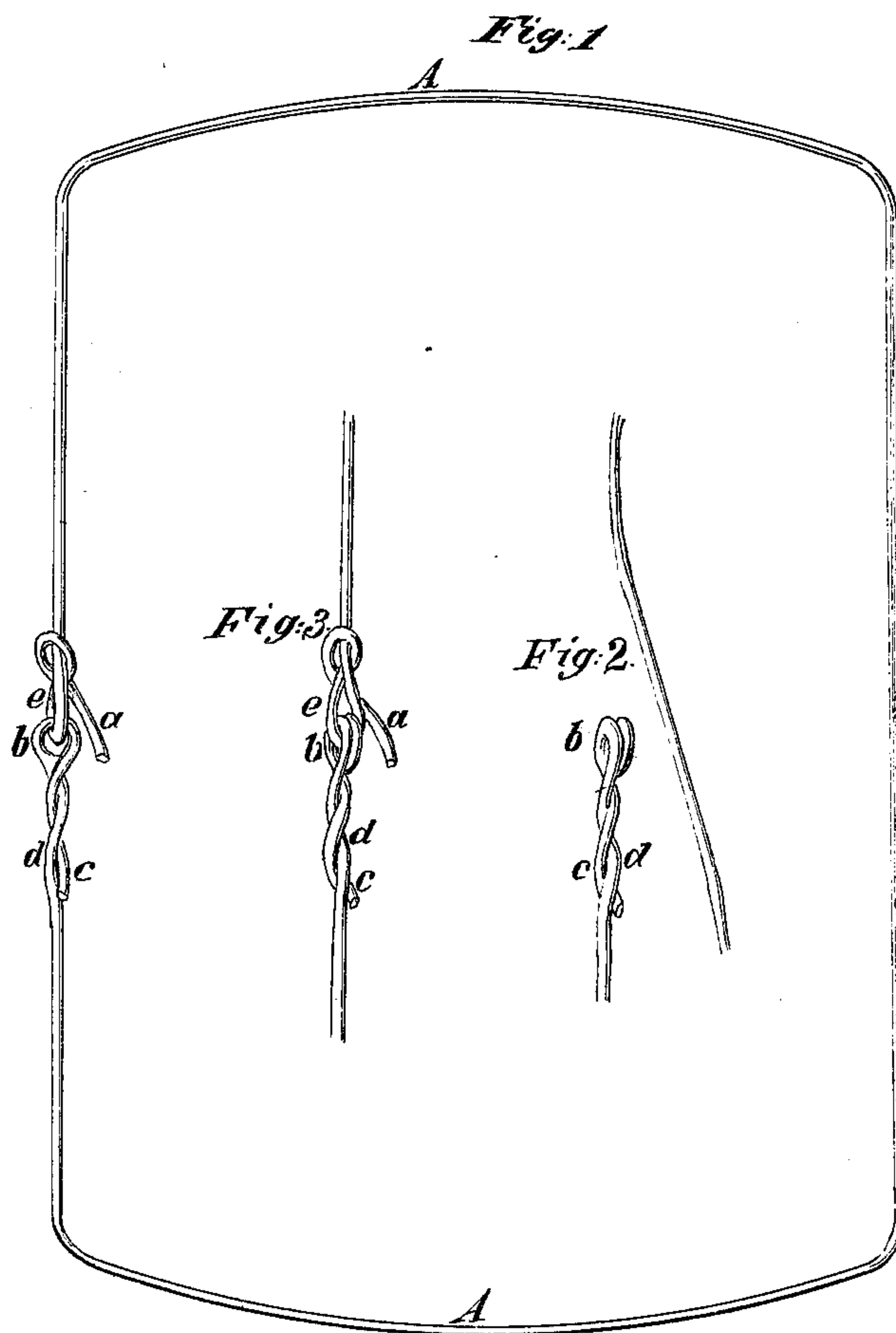


CHARLES BROWN.

Improvement in Wire Bale-Tie Fastenings.

No. 126,515.

Patented May 7, 1872.



Witnesses:

Henry T. Brown  
Frederick

Charles Brown

# UNITED STATES PATENT OFFICE.

CHARLES BROWN, OF NEW YORK, N. Y.

## IMPROVEMENT IN WIRE BALE-TIE FASTENINGS.

Specification forming part of Letters Patent No. 126,515, dated May 7, 1872.

Specification of an Improvement in Wire Bale-Tie Fastenings, invented by CHARLES BROWN, of the city, county, and State of New York.

This invention consists in a wire bale-tie, having one end formed into a double eye, whereby a double bearing is provided for the other end to draw or pull against, and the liability to cut or break is reduced; also, in the combination with such double eye of a plain opposite end, whereby the cost of construction is reduced about one-half; the tie is adapted to variations in the size of different parts of the bale, so that all the ties on a bale may be subject to uniform tension; greater facility is afforded for untying the bale; provision is made for using the tie over again; and the liability of the ties to catch or tangle in drawing one from the bundle is obviated.

In the accompanying drawing, Figure 1 is a side view of the bale-tie, showing its condition when applied to a bale, but not showing the bale. Fig. 2 is a perspective view of the ends of the tie before being fastened; and Fig. 3 is a similar view, showing the ends fastened.

Similar letters of reference indicate corresponding parts in all the figures.

To make this tie, a piece of wire of suitable length is taken, and two complete circular coils are formed in it a suitable distance from one end to form the eye *a* which is secured by twisting together the terminal portion *c*, which extends from one coil, and a corresponding length of the portion *d*, extending from the other coil. This completes the manufacture, and, thus made, any suitable number of ties are bundled for market.

These ties may be taken, one at a time, from any part of the bundle by simply taking hold of the eye and drawing them out lengthwise, without the catching to which other ties are liable, the plain end offering no obstruction to the drawing, such as would be offered by a

hook, or cross, or other such contrivance as is commonly used on the corresponding end of other wire ties.

Only one end of the tie being manufactured, the cost of manufacture is only about half that of other ties; and the eye being made double less twisting together of the wire is necessary to secure it, so that the liability of breaking the wire in the manufacture is reduced and less waste is made.

In applying the tie to a bale, it is first put round the bale, and in doing this in the baling-press, the plain end is passed through the grooves of the press with greater facility than either end of any tie both ends of which are manufactured. When the tie has been put round the bale the plain end is passed through the eye, turned back and drawn across the eye, which, presenting a double bearing, is little liable to be cut. When the tie has been drawn sufficiently tight, the plain end is passed under the portion of the wire back of the loop *e*, which has been thus formed, then over and again under toward the eye, in the form of the figure 8.

To untie the bale, the end *a* is pulled out with a scratch-awl, brad-awl, or other pointed instrument, and the loop *e* will then be drawn out from the eye by the expansion of the bale, and in being thus drawn out will be straightened sufficiently to permit the tie to be used over again, which is what cannot commonly be done with the wire ties now in common use.

### Claim.

The wire bale-tie fastening herein shown, consisting of the straight end *a*, and the double-eyed or looped end *b*, when combined for operation, substantially in the manner described.

CHARLES BROWN.

Witnesses:

HENRY T. BROWN,  
FRED. HAYNES.